

**Utilization Possibility of the Mathematical Optimization Technologies
in Railway System**

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Recently computing capability for solving large scale mathematical optimization problems has been developed because of dramatic improvements of the performance of computing machineries, progresses of parallel processing technologies and developments of massive data processing technologies. These technology developments are expected to make operations of railway system such that maintenance of railway facilities, and customer service more efficient. Under these circumstances, we widely researched and examined potential applications of mathematical optimization techniques to railway field. In this report, we briefly explain the results of our research and examination.